

**REMARKS/ARGUMENTS:****Summary of Claim Amendments**

Claims 1, 6, 9-12 and 16-18 have been amended to more particularly define the present invention. Claims 1-12 and 16-18 remain pending in the application. No new matter has been added.

**Claim Objections**

The Examiner objected to claims 1-12 and 16-18 because of certain informalities. Applicant has amended claims 1, 6, 9-12 and 16-18 to address the various objections raised by the Examiner.

With respect to claims 1, 9 and 16, the Examiner contends that the phrase "dividing said substrate into copies" is unclear in meaning. Applicant has amended the phrase to read "dividing said printing substrate into a plurality of blank substrates for printing", which clearly describes this step of the claimed method.

With respect to claim 6, the Examiner contends that the phrase "and another ink system" is confusing. Applicant has amended the claim to recite "said first ink system comprises a hybrid ink which contains an ink which can be cured by radiation, or comprises an ink for offset printing". Support of the amendment is found for example, in paragraph [0012] of the specification.

With respect to claim 6, the Examiner further contends that the phrase "an ink typically used for offset printing" does not clearly define the element. Applicant has amended the phrase to read "an offset ink", which is a term well known in the art, as evidenced by U.S. Patent No. 6,443,058 to Stadler et al. cited by the Examiner. See for example, column 2, lines 27-28 of Stadler et al..

With respect to claims 8 and 16, the Examiner contends that the term "customarily" is indefinite. Applicant has removed the term from claims 9, 10 and 16. Please note that claim 8 does not contain this term as contended by the Examiner.

With respect to claim 11, the Examiner contends that the phrase "said ink systems" does not have proper antecedent basis. Applicant has rewrite claim 11 to introduce proper antecedent basis. Applicant has noted the same problem in claim 12 and has amended it accordingly.

With respect to claim 16, the Examiner contends that the phrase "said ink film having two different ink systems" is unclear in meaning. Applicant has rewritten claim 16 to more clearly define the claimed invention and amended claims 17 and 18, which depend from claim 16, accordingly. Support of the amendment is found for example, in paragraph [0029] of the specification.

In view of the foregoing amendments, Applicant submits that the claim objections have been overcome and withdrawal thereof is respectfully requested.

#### **Claim Rejections under 35 USC § 112:**

The Examiner rejected claims 2, 12 and 16-18 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Manual of Patent Examining Procedure (MPEP) 2164.01 provides,

"Any analysis of whether a particular claim is supported by the disclosure in an application requires a determination of whether that disclosure, when filed, contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention. The standard for determining whether the specification meets the enablement requirement was cast in the Supreme Court decision of *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916) which postured the question: is the experimentation needed to practice the invention undue or unreasonable? That standard is still the one to be applied. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). Accordingly, even though the statute does not use the term "undue experimentation," it has been interpreted to require that the claimed invention be

enabled so that any person skilled in the art can make and use the invention without undue experimentation. *In re Wands*, 858 F.2d at 737, 8 USPQ2d at 1404 (Fed. Cir. 1988). See also *United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988) ("The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation."). A patent need not teach, and preferably omits, what is well known in the art."

Applicant respectfully submits that the specification of the present application is enabling because one reasonably skilled in the art could make or use the invention from the disclosures in the application coupled with information known in the art without undue experimentation.

With respect to claim 2, the Examiner contends that Applicant recites that the ink systems differ from one another with respect to "lacquer absorption capacities" but has not disclosed any examples of inks and/or lacquers that have such characteristics. With respect to claim 12, the Examiner contends that Applicant recites a binder but has not disclosed the types of binders that have the claimed lacquer absorption capacities. Applicant respectfully submits that the lacquer absorption capacities of ink systems and binders are well known in the art or can be easily found out by one skilled in the art without undue experimentation. U.S. Patent No. 6,443,058 to Stadler et al. (Stadler et al.) applied by the Examiner teaches that various types of inks, for example, solvent-based inks, radiation-curing inks and offset-typical inks, are commonly used in the art. Stadler et al. also teaches, for example, in column 2, lines 49-52, and column 9, lines 34-42 that it is known that solvent-based inks and radiation-curing inks can differ in terms of their viscosities. Since it is well known in the art that a lacquer is absorbed more by an ink system with a lower viscosity than an ink system with a higher viscosity, one skilled in the art can select inks with different lacquer absorption capacities, for example, based on their viscosities without undue experimentation.

With respect to claim 16, the Examiner contends that Applicant recites that "degrees of gloss vary among areas of different ink systems" but has not given specific examples of inks or lacquers having these characteristics. With respect to claim 17, the Examiner contends that Applicant has not disclosed specific lacquer examples that have the characteristics recited in this claim. With respect to claim 18, the Examiner contends that Applicant recites "one or more gloss-determining

components" of a lacquer that can be absorbed by an ink film but has not disclosed any specific examples of these gloss-determining components. Applicant respectfully submits that inks and lacquers with varying degrees of gloss are well known in the art and can be found out by one skilled in the art without undue experimentation. Through routine experimentation, one of ordinary skill in the art would be able to select appropriate inks and lacquers from known printing inks and lacquers to provide for the desired gloss of the printed product.

In view of the foregoing discussions, Applicant submits that one of ordinary skill in the art could make or use the invention from the disclosures in the present application coupled with information known in the art without undue experimentation. All the terms pointed out by the Examiner as not being described to enable one skilled in the art to make and use the invention are actually well known in the art and thus, need to be described in the specification. Therefore, the claim rejections under 35 U.S.C. § 112 are overcome and withdrawal thereof is respectfully requested.

**Claim Rejections under 35 USC § 103:**

a. Rejections of Claims 1-6, 9 and 11-12

The Examiner rejected claims 1-6, 9 and 11-12 under 35 U.S.C. § 103(a) as being unpatentable over Stadler et al..

Claim 1 now reads as follows:

A method for printing on a printing substrate having a surface for preparing packaging blanks, comprising the steps of:

- dividing said printing substrate into a plurality of blank substrates for printing, said blank substrates having areas intended for application of an adhesive;
- producing a printed image on each of said blank substrate by application of an ink film of a first ink system;
- coating said areas intended for application of an adhesive with a second ink system; and

- applying a lacquer over said surface of said printing substrate, said lacquer being absorbed by said coating of said areas intended for application of an adhesive, whereby said areas intended for application of an adhesive form substrates for application of an adhesive.

According to the claimed method, printed images are produced on the printing substrate with an ink system, and areas intended for later application of an adhesive are printed with another ink system and then the entire surface of the printing substrate is coated with a lacquer. Due to the different lacquer absorbing capacities of the ink systems, the surfaces of two ink systems have different gloss and properties. In the claimed method, the ink system applied on the surface of the areas intended for application of an adhesive absorbs the lacquer so that an adhesive can be applied on these areas without being repelled by the lacquer. The claimed method eliminates the need for special lacquer plates with recesses for areas intended for application of an adhesive, and thus, the manufacturing cost can be greatly reduced.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art references (or references when combined) must teach or suggest all the claimed limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on an applicant's disclosure in the specification. See *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q. 2d 1438 (Fed. Cir. 1991).

Applicant respectfully submits that claims 1-6, 9 and 11-12 are not rendered obvious by Stadler et al. for failure to meet all of the three criteria for establishing a *prima facie* case of obviousness as detailed below.

With respect to the first criterion for establishing a *prima facie* case of obviousness, Applicant submits that there is no suggestion or motivation for a person of ordinary skill in the art to modify Stadler et al. to arrive at the present invention.

First, Stadler et al. teaches away from the claimed invention. Stadler et al. teaches a hybrid printing machine which comprises a flexo printing unit for applying a metallic ink, a downstream

offset printing unit for applying an offset ink, followed by a varnishing unit for applying a varnish. Stadler et al. also teaches printing with two ink systems followed by varnishing. However, Stadler et al. teaches that the varnish must not reduce the gloss of the printed image, which is contrary to the claimed method wherein the lacquer is to be absorbed by the coating for the areas intended for application of an adhesive. As described in column 8, lines 39-44 of Stadler et al., "[t]he flexo printing unit 5 functions as a varnishing unit for applying a clear varnish layer which covers the offset printed image and which preferably does not cover the flexographic printed image, so that any reduction in the metallic gloss of the flexographic printed image by the aqueous clear varnish is avoided." With Stadler et al. in front of him, a person having ordinary skill in the art would avoid the use of an ink which absorbs the lacquer coating in order to avoid reducing the gloss. Applicant submits that a person having ordinary skill in the art, having Stadler et al. in front of him, would not be motivated to select an ink which absorbs the lacquer coating, as required in the claimed invention for areas intended for application of an adhesive.

Second, the claimed invention solves a different problem from Stadler et al. and such different problem is recited in the claims. The purpose of the claimed invention is to prepare package blanks with areas ready for application of an adhesive without the need for specially manufactured lacquering plates. Claim 1 of the present application recites the addressed problem, "- applying a lacquer over said surface of said printing substrate, said lacquer being absorbed by said coating of said areas intended for application of an adhesive, whereby said areas intended for application of an adhesive form substrates for application of an adhesive." In contrast, the purpose of Stadler et al.'s invention is to produce labels decorated with metal effects without the use of printing sheets covered with vapor-deposited aluminum, which is costly and needs to be covered with a white primer before printing. Stadler et al. fails to recognize the problem addressed in the claimed invention, let alone teaches or suggests solutions to this problem.

Third, what the Examiner asserted as "desired absorption" and "desired overall finish" are in fact undesired and unobvious in the art. Specifically, the Examiner states,

"[w]ith respect to claim 1, Stadler et al. discloses the claimed method except that it is silent on lacquer absorption of the second ink system.... With respect to the lacquer absorption of the second ink system, through routine experimentation, one of ordinary skill in the art would be able to select appropriate inks from known printing inks to provide for

the desired absorption of the lacquer based on the desired overall finish of the printed product.” (emphases added)

Applicant submits that if one of ordinary skill in the art knows what is desired, he or she would be able to select appropriate inks from known printing inks to provide for the desired absorption of the lacquer based on the desired overall finish of the printed product. However, it is undesired and unobvious for one of ordinary skill in the art to select an ink which absorbs a lacquer to an extent that an adhesive can be further applied on top of it, as required in the claimed invention. Since a lacquer is known to impart gloss or protection to the surface being coated by the lacquer, one of ordinary skill in the art, if coating an ink film with a lacquer, would desire the lacquer to remain on the surface of an ink film as much as possible to impart the desired gloss or protection. Accordingly, it is unobvious to one of ordinary skill in the art to apply a lacquer over the surface of the printing substrate, the lacquer being absorbed by the coating of the areas intended for application of an adhesive, whereby the areas intended for application of an adhesive form substrates for application of an adhesive.

Since the Examiner rejected the claims as being obvious over Stadler et al. in combination with his personal knowledge but failed to present any evidence to support his position, if the Examiner maintains the rejection by asserting that it is obvious or desired in the art to select an ink for areas intended for application of an adhesive which absorbs the lacquer whereby the areas intended for application of an adhesive form substrates for application of an adhesive, Applicant respectfully requests evidence or an affidavit from the Examiner to support his assertion.

For the reasons discussed above, Applicant submits that there is no suggestion or motivation for a person of ordinary skill in the art to modify Stadler et al. to arrive at the present invention.

With respect to the second criterion for establishing a *prima facie* case of obviousness, Applicant submits that there is no reasonable expectation of success even if Stadler et al. is modified by one of ordinary skill in the art through routine experimentation, as alleged by the Examiner. Stadler et al. teaches application of a varnish to protect the printed sheet. See column 10, lines 47-49, which recite “... the transparent protective varnish applied by means of the flexo printing unit 5 has not been left out in the region of the metallicly printed printing-material area 41, and therefore completely covers all the printing-material areas 39, 41 and 42.” However, this varnish layer can

not form a substrate for application of an adhesive because the varnish would repel the adhesive applied. That is why Stadler et al. has to leave out areas for application of an adhesive. See column 10, lines 38-39, which recite “[a]s the upper, final layer, the printing-material areas 39 and 42 have been covered with a protective varnish made of water-based clear varnish, the protective varnish not covering the printing-material area 41.” Therefore, one of ordinary skill in the art in reviewing Stadler et al. would not have successfully prepared printed packaging blanks with areas for applying an adhesive without leaving out the areas in application of a varnish.

With respect to the third criterion for establishing a *prima facie* case of obviousness, Applicant submits that not all the claimed limitations are taught or suggested, even if Stadler et al. can be modified by one of ordinary skill in the art through routine experimentation. Specifically, claim 1 recites the steps of coating said areas intended for application of an adhesive with a second ink system and applying a lacquer over said surface of said printing substrate, said lacquer being absorbed by said coating of said areas intended for application of an adhesive, whereby said areas intended for application of an adhesive form substrates for application of an adhesive, which allow preparation of package blanks with areas ready for application of an adhesive without the need for specially manufactured lacquering plates. These claim limitations are nowhere taught or suggested by the prior art applied the Examiner. Furthermore, the Examiner contends,

“[n]ote, with respect to the phrase “areas intended for application of an adhesive,” a recitation of an intention is not a positively recited step in the method claim and therefore is not given any patentable weight in the claims.”

Applicant respectfully disagrees with the Examiner because the steps as a whole are positive limitations of the claimed invention.

Based on the foregoing arguments, Applicant respectfully submits that in Stadler et al. or in the knowledge generally available to one of ordinary skill in the art, there is no suggestion or motivation at all to modify the reference, no reasonable expectation of success, and no teaching or suggestion of all claim limitations of claim 1. Therefore, a *prima facie* case of obviousness has not been established by the Examiner, and thus, claim 1 is not rendered obvious by Stadler et al.. The rejection of claim 1 under 35 U.S.C. § 103(a) is overcome and withdrawal thereof is requested.



With respect to claims 2-6, since they are all dependent from claim 1, they incorporate all the claim limitations of claim 1 and add additional limitations. The dependent claims are patentable for the same reasons given above with respect to claim 1 and they are even more patentable because they add additional claim limitations.

With respect to claim 9, the Examiner contends,

"... While the specifics of the ink used by this printing unit are not disclosed, it is an offset printing unit and therefore it would have been obvious to use an customary offset printing ink with the printing unit. Such a customary offset printing ink would have a binder that is customarily used with the offset printing ink...."

Applicant has amended claim 9, which now reads as follows:

A method for printing on a printing substrate having a surface for preparing packaging blanks, comprising the steps of:

- dividing said printing substrate into a plurality of blank substrates for printing, said blank substrates having areas intended for application of an adhesive;
- producing a printed image on each of said blank substrates by application of an ink film;
- applying a binder for offset printing inks at said areas intended for application of an adhesive; and
- applying a lacquer over said surface of said printing substrate, said lacquer being absorbed by said binder, whereby said areas intended for application of an adhesive form substrates for application of an adhesive.

Applicant respectfully submits that for the same reasons given above with respect to claim 1, in Stadler et al. or in the knowledge generally available to one of ordinary skill in the art, there is no suggestion or motivation at all to modify the reference, no reasonable expectation of success, and no teaching or suggestion of all the limitations as recited in claim 9. Stadler et al. nowhere teaches or suggests the use of a binder for preparing package blanks. Specifically, Stadler et al. nowhere teaches or suggests the steps of applying a binder for offset printing inks at said areas intended for application of an adhesive and applying a lacquer over said surface of said printing substrate, said lacquer being absorbed by said binder, whereby said areas intended for application of an adhesive

form substrates for application of an adhesive, which allow preparation of package blanks with areas ready for application of an adhesive without the need for specially manufactured lacquering plates. Therefore, claim 9 is not rendered obvious by Stadler et al.. The rejection of claim 9 under 35 U.S.C. § 103(a) is overcome and withdrawal thereof is requested.

With respect to claims 11 and 12, since they are both dependent from claim 9, they incorporate all the claim limitations of claim 9 and add additional limitations. The dependent claims are patentable for the same reasons given above with respect to claim 9 and they are even more patentable because they add additional claim limitations.

b. Rejections of Claims 7-8

The Examiner rejected claims 7-8 under 35 U.S.C. § 103(a) as being unpatentable over Stadler et al. in view of U.S. Patent No. 5,233,762 to Müller et al. (Müller et al.). Because claims 7-8 are dependent from claim 1 either directly or indirectly, they incorporate all the claim limitations of claim 1 and add additional limitations.

Applicant submits that dependent claims 7-8 are patentable for the same reasons given above with respect to claim 1 and they are even more patentable because they add additional claim limitations.

As discussed above with respect to claim 1, Stadler et al. teaches away from the claimed invention because it teaches that reduction in the metallic effect by the varnish should be avoided, whereas the claimed invention, in contrast, teaches the use of an ink system which absorbs a lacquer for the area intended for application of an adhesive. Furthermore, Stadler et al. fails to teach or suggest all the limitations as recited in claim 1. Specifically, Stadler et al. fails to teach the steps of coating said areas intended for application of an adhesive with a second ink system and applying a lacquer over said surface of said printing substrate, said lacquer being absorbed by said coating of said areas intended for application of an adhesive, whereby said areas intended for application of an adhesive form substrates for application of an adhesive, which are essential claim limitations of claim 1 and allow preparation of package blanks with areas ready for application of an adhesive without the need for specially manufactured lacquering plates.

Müller et al. discloses a radiator device for drying and hardening ink and varnish coatings in a printing press. The radiator device includes a high-power radiator having an electrode pair connected to an alternating-current voltage source, and a wall intermediate the pair of electrodes and defining a gas-filled discharge space. The advantage of the radiator device taught by Müller et al. is that the electrical energy injected from one of the electrodes into the discharge space causes additional discharges outside of the discharge space, and the additional discharges has a catalytic effect on the drying and hardening process. Müller et al. fails to recognize the problem addressed in the claimed invention, which is to prepare package blanks with areas ready for application of an adhesive without the need for specially manufactured lacquering plates, let alone teaches or suggests solutions to this problem.

Applicant submits that there is no suggestion or motivation in either Stadler et al. or Müller et al. to combine the references. Stadler et al. and Müller et al., even if combined, still fail to teach or suggest the claimed invention. Specifically, Stadler et al. and Müller et al., even if combined, still fail to teach or suggest the steps of coating said areas intended for application of an adhesive with a second ink system and applying a lacquer over said surface of said printing substrate, said lacquer being absorbed by said coating of said areas intended for application of an adhesive, whereby said areas intended for application of an adhesive form substrates for application of an adhesive, which allows preparation of package blanks with areas ready for application of an adhesive without the need for specially manufactured lacquering plates. Therefore, claims 7-8 are not rendered obvious by Stadler et al. in view of Müller et al.. The rejections of claims 7-8 under 35 U.S.C. § 103(a) are overcome and withdrawal thereof is requested.

c. Rejections of Claims 9-10 and 16-18

The Examiner rejected claims 9-10 and 16-18 under 35 U.S.C. § 103(a) as being unpatentable over Stadler et al. in view of U.S. Patent No. 5,638,752 to Hartung et al. (Hartung et al.).

For the same reasons discussed above with respect to claims 1 and 9, Applicant respectfully submits that in Stadler et al. or in the knowledge generally available to one of ordinary skill in the art, there is no suggestion or motivation at all to combine the references, no reasonable expectation of success, and no teaching or suggestion of all the limitations as recited in claim 9. Stadler et al.

nowhere teaches or suggests the use of a binder for preparing package blanks. Specifically, Stadler et al. nowhere teaches or suggests the steps of applying a binder for offset printing inks at said areas intended for application of an adhesive and applying a lacquer over said surface of said printing substrate, said lacquer being absorbed by said binder, whereby said areas intended for application of an adhesive form substrates for application of an adhesive.

Hartung et al. discloses a multi-color offset printing press including an in-line flexographic printing/lacquering unit for applying coating fluids to materials printed in the printing press. The flexographic printing/lacquering unit may be installed upstream of the first printing unit, downstream of the last printing unit or in between printing units. Hartung et al. fails to recognize the problem addressed in the claimed invention, which is to prepare package blanks with areas ready for application of an adhesive without the need for specially manufactured lacquering plates, let alone teaches or suggests solutions to this problem.

Applicant submits that there is no suggestion or motivation in either Stadler et al. or Hartung et al. to combine the references. Stadler et al. and Hartung et al., even if combined, still fail to teach or suggest the claimed invention. Specifically, Stadler et al. and Hartung et al., even if combined, still fail to teach or suggest the steps of applying a binder for offset printing inks at said areas intended for application of an adhesive and applying a lacquer over said surface of said printing substrate, said lacquer being absorbed by said binder, whereby said areas intended for application of an adhesive form substrates for application of an adhesive, which allows preparation of package blanks with areas ready for application of an adhesive without the need for specially manufactured lacquering plates. Therefore, claims 9-10 and 16-18 are not rendered obvious by Stadler et al. in view of Hartung et al.. The rejections of claims 9-10 and 16-18 under 35 U.S.C. § 103(a) are overcome and withdrawal thereof is requested.

#### **Conclusion:**

Based on the foregoing amendments and remarks, favorable consideration and allowance of all of the claims now present in the application are respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place the case in condition for final allowance, then it is respectfully requested that such amendment or correction be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned.

The Commissioner is authorized to charge any required fees, including any extension and/or excess claim fees, any additional fees, or credit any overpayment, to Goodwin Procter LLP Deposit Account No. 06-0923.

Respectfully submitted for Applicant,



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